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ABSTRACT

A project was conducted to (1) identify teacher competencies needed for mainstreaming handicapped students into regular vocational programs and (2) identify, modify, and/or develop strategies for developing vocational teacher competencies needed for mainstreaming. Based on a review of the literature, 123 competency statements were selected and grouped into seven areas: classroom management, planning, and teaching methods; coordination of cooperative vocational education; counseling and human relations; curriculum development; assessment of student progress and analysis of student needs; program management; and professional development. From this list a panel of consultants selected sixty-two competencies which were essential but not a part of the regular vocational teacher education curriculum. Special education teachers, special vocational education teachers, and vocational teachers were surveyed using an instrument based on the sixty-two competencies. Survey findings indicated a high level of agreement between vocational teachers and special education teachers regarding the importance of competencies. In addition, it was found that special educators perform the competencies daily or weekly, whereas the vocational and special vocational teachers performed the tasks occasionally or never. (A model program consisting of a set of competencies, along with performance objectives for achieving them, is presented. The survey questionnaire is appended.) (IRA)

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FINAL REPORT

DEVELOPING TEACHER COMPETENCIES IN WORKING WITH HANDICAPPED STUDENTS

BY

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July 1, 1979
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COMMONWEALTH OF KENTUCKY
STATE DEPARTMENT OF EDUCATION
BUREAU OF VOCATIONAL EDUCATION

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Finally, this acknowledgement would be incomplete without mentioning our appreciation for the secretarial work of Ms. Laura Tucker. Her assistance was crucial to the successful completion of this project.

PROJECT ABSTRACT

TITLE OF PROJECT: DEVELOPING TEACHER COMPETENCIES IN WORKING WITH HANDICAPPED STUDENTS

PROJECT DIRECTOR: Dr. Keith Bayne

APPLICANT ORGANIZATION: University of Louisville

TRANSMITTED BY: Dr. John A. Dillon, Jr.

DURATION OF PROJECT: 3 April 1978 - 30 June 1979

OBJECTIVES:

1. Identify teacher competencies needed for mainstreaming handicapped students into regular vocational programs.

   1.1 Determine current state of the art.

   1.2 Identify a common core set of competencies needed by all vocational educators and specific program areas.

   1.3 Determine competencies of population of vocational educators.

   1.4 Identify training needs.

2. Identify, modify and/or develop strategies for developing vocational teacher competencies needed for mainstreaming.

   2.1 Identify delivery systems currently provided at pre- and in-service levels.

   2.2 Determine delivery system needed at in-service level.

   2.3 Develop model program for Kentucky.

   2.4 Field test the model.

   2.5 Conduct in-service training for implementation and dissemination.

PROCEDURES:

This project will be concerned with two major areas: 1) identification of competencies needed by vocational educators who teach the handicapped and 2) strategies for developing these competencies. A thorough review of the literature will be conducted to determine the state-of-the-art. Identified competencies will be prioritized by a panel of consultants and a self evaluation conducted to determine the training needs. A survey of existing delivery systems will be conducted and after the training needs are identified, a model program will be developed. Three seminars will be conducted for dissemination purposes.

CONTRIBUTION TO EDUCATION:

Vocational teachers are now finding, and will continue to find, that handicapped students will be enrolled in their programs. This is as it should be, however, these same teachers need to develop the teacher competencies which will enable them to effectively deal with the special needs of the handicapped students. Thus far, special methods have not been included in vocational teacher preparation or in-service educational programs. This proposed project is intended to identify the essential competencies and to determine the most appropriate delivery system.

DEVELOPING TEACHER COMPETENCIES IN WORKING WITH HANDICAPPED STUDENTS

It is common for most papers, reports or articles on education for the handicapped to begin by noting that education for all has long been an American goal; but, in fact, has not always included all individuals. The discrepancies between such stated goals and what actually exists is not new; however, the amount of current interest to reduce the discrepancy is.

As a result of the civil rights movement of the 1950's and 60's and the Civil Rights Act of 1964, equal opportunity in education has become a national concern. This concern has resulted in additional legislation and litigation to insure that equal opportunity in education includes the disadvantaged and handicapped person.

Passage of Public Law 94-142 made the right of the handicapped to have available to them a free, appropriate public education, a nation-wide, unambiguous declaration. This was further supported and extended by regulations implementing Section 504 of the Rehabilitation Act of 1973, which requires that institutional recipients of federal financial assistance for education shall provide a free, appropriate public education to each qualified handicapped person, regardless of the nature or severity of the person's handicap. In order to further insure that all educational programs are available including vocational education, Public Law 94-482--the Educational Amendment of 1976--provided vocational education monies for special needs programming. In this Act, allocation was increased from twenty-five percent to thirty percent. Therefore, we see a continuing emphasis in both laws,

P.L. 94-142 and PL. 94-482, upon the need to provide educational programs which will enable each and every handicapped person to learn, earn and contribute to society.

The education of students with special needs has been a concern of vocational educators, as well as special educators. However, until recent times, many vocational educators have held to the dictum which was inherent in the Smith-Hughes Act that vocational education should serve only those who could profit from it and they interpreted this phrase to mean that special needs learners should be excluded whenever "more able" students could be found. Nevertheless, vocational education has always served a high proportion of the students who did not do well in college preparatory programs. There has been a gradual acceptance that vocational programs must educate the handicapped. As career education programs are installed, the gifted are also increasingly enrolling. This range of students obviously requires an increased range of teacher competencies and may entail revised teacher education programs.

Because of the previously mentioned legislation, special educators and vocational educators have found that they must develop and implement educational programs which will maximize the potential for student placement in the world of work. With similar, or the same, general educational goals--that of providing training for each handicapped person which will make him/her less dependent upon society--there is a need to develop teacher competencies which will allow both groups of educators to do a better job. Therefore, it is important that essential teacher competencies be identified.

There are a number of indications that vocational and special educators who are qualified in one, but not the other of these two fields, are teaching in situations where both types of competencies are needed. It seems unlikely that many teachers will spend the time, money and effort

required to achieve full qualifications in each field. Furthermore, most certification/endorsement structures seem to assume that it is better to have a teacher who is completely qualified in one field and completely unqualified in another than it is to have certifications based on achievement of most qualifications for both fields.

As increasing numbers of handicapped persons enter vocational programs, teachers are faced with the very real problems of determining how best to meet their individual needs.

This project was designed to meet the following goals and objectives:

1. Identify teacher competencies needed for mainstreaming handicapped students into regular vocational programs.
   - 1.1 Determine current state of the art.
     - 1.1.1 Conduct thorough search of the literature and develop a report of the findings regarding teacher competencies needed for handicapped learners.
     - 1.1.2 Prepare Report of Programs and identify teachers who are currently in charge of on-going programs.
   - 1.2 Identify a common core set of competencies needed by all vocational educators and specific program areas.
     - 1.2.1 From literature search, develop preliminary survey instrument to determine common core competencies.
     - 1.2.2 Submit survey instrument to a panel of experts for advice and revision.
     - 1.2.3 Field test instrument with University personnel and practitioners in the public schools.
     - 1.2.4 Revise and prepare final instrument.

1.2.5 Conduct survey of the vocational teachers and special education teachers working with vocational students with handicapping conditions.

1.2.6 Conduct an analysis of competencies as perceived by teachers as needed in relation to identified competencies.

1.2.7 Priorities competencies in relation to training needs for vocational teachers.

1.2.8 Submit priorities list to panel of consultants to review and assist in determining appropriateness of competencies.

1.3 Determine competencies of population of vocational educators.

1.3.1 From the above list, develop a self-evaluation form.

1.3.2 Administer instrument to special vocational teachers to determine competencies they possess.

1.3.3 Compile data and prepare report.

1.4 Identify training needs.

1.4.1 Analyze data to determine training needs.

1.4.2 Consult with panel of consultants to determine priority training needs.

2. Identify, modify and/or develop strategies for developing vocational teacher competencies needed for mainstreaming.

2.1.1 Conduct a survey of educational institutions providing programs for exceptional children and vocational education.

2.1.2 Identify in-service programs and persons involved which have been conducted for special vocational education in the past three years.

2.1.3 Survey literature to determine delivery systems utilized in other states.

2.2 Determine delivery system needed at in-service level.

2.2.1 Identify types of delivery systems needed for pre-service and in-service.

2.3 Develop model program for Kentucky.

2.3.1 Develop model program for Kentucky.

2.3.2 Review model with panel of consultants, personnel in vocational education and special education, and State Board of Education's Division of Certification.

2.4 Field test the model.

2.4.1 Revise and finalize model using multi-media materials currently available.

2.5 Conduct in-service training for implementation and dissemination.

2.5.1 Identify in-service sites.

2.5.2 Select participants to attend workshops.

2.5.3 Hold two-day workshops.

2.5.4 Conduct evaluation of model program.

DEFINITION OF TERMS

Procedural Safeguards. Specific procedures designed by law to protect the rights of children and parents. These safeguards include:

Due process - The right of the parent and child to be fully informed and included in decision-making at all steps in identification, child evaluation, planning, programming, and program evaluation.

Nondiscrimination - The assurance that special education placement will not be provided on the basis of biased or discriminatory information.

Least restrictive environment - A wide number of options favoring the educational environment which is closest to general education placement.

Native language - The language spoken in the home.

Confidentiality - The right of parents and children to have access to and control of all educational records, relative evaluation data, and assurance that any information contained in school records will not be released without the permission of the parent.

P. L. 94-142 - The Education for All Handicapped Children Act

P. L. 94-482 - The Education Amendments of 1976 to revise the Vocational Education Act of 1963.

Special Education - Education and related services designed to meet the unique needs of handicapped children.

Special Vocational Education - Vocational education programs, services and activities designed to meet the unique needs of handicapped and disadvantaged students.

DEVELOPING TEACHER COMPETENCIES IN
WORKING WITH HANDICAPPED STUDENTS:
STATE OF THE ART REPORT

At this point, neither vocational education nor special education has clearly defined the parameters of its role in education of handicapped students or identified points of overlapping responsibility (Weisenstein, 1977). Vocational educators as a group seem to suffer from a lack of understanding about needs, wants, and abilities of special needs students and need to be more cognizant of the differences between and among special vocational needs learners (Meers, 1977). Increasing awareness of this point has resulted in workshops and inservice programs for those currently employed to teach the disadvantaged and handicapped in vocational/technical schools and programs. Areas in need of improvement in the vocational education of the disadvantaged and handicapped are being increasingly identified and dealt with. These include the need for more individualized and small group study, better vocational counseling and guidance, better coordination of teaching activities and occupational needs, stronger relationships between general educational subjects and the vocational needs of students, and better teaching techniques and methods (Altfest, 1975). Because of the previously mentioned legislation, special educators and vocational educators alike have recognized that they must develop and implement educational programs in these and similar areas.

The "special" quality of special education is being recognized as the body of knowledge, skills, and attitudes which are used in the education and training of exceptional school children (Reynolds, 1973). New

trends in the areas of special teacher education recognize and respond to individualism and mainstreaming as mandated by the laws. According to researchers, special education personnel are being trained for a changing role. Boundary lines between special education are overlapping with other territories such as "remedial" and "disadvantaged" programs with the following implications: a reduction in the number of different kinds of special education certificates, more individualized responsibility by special educators to document their own competencies and performances, and more active participation in expanding programs of continuing education as a means of enhancing professional development and performance (Reynolds, 1973). Legislation in this area, then, is concerned with serving special needs learners and preparing special needs personnel for integration of the handicapped into regular vocational education programs.

THE IMPETUS FOR CHANGE

SPECIAL AND VOCATIONAL EDUCATORS AND THE IEP

The truly effective key to compliance with the Education for All Handicapped Children Act is an understanding and implementation of the individualized education program (IEP) required for every handicapped child. This requires much of special and vocational educators alike.

The IEP is a written statement which describes the educational objectives for each handicapped student and the services to be provided to that student. The elements of the plan are statements of present educational performance, annual goals, short-term objectives, conditions under which services will be delivered, and evaluation criteria.

The term "individualized education program" itself conveys important concepts that need to be specified. First, "individualized" means that the

IEP must be addressed to the educational needs of a single child rather than a class or group of children. Second, "education" means that the IEP is limited to those elements of the child's education that are more specifically special education and related services as defined by the Act. Third, "program" means that the IEP is a statement of what will actually be provided to the child, as distinct from a plan which provides guidelines from which a program must subsequently be developed (Weintraub, 1977).

Teacher involvement in the development of the IEP is intended to relieve the problem of allowing teachers who have major responsibility for program delivery to have only a minor voice in the educational planning and placement decisions of handicapped students (Weintraub, 1977). Full, active teacher involvement has the advantage of establishing a common basis for understanding along with the child's parents. In the past, teachers have been left in the position of guessing what was told to parents by psychologists or administrators. The teacher is the front-line person and must, in the end, deal with communication problems. It is far more efficient and effective for the teacher to interpret the educational program directly through full involvement in the development of the IEP from the start (Weintraub, 1977).

Understanding of the handicapped child's learning needs is only the start of competencies that are required of teachers as they assist in planning and implementing the IEP. Full participation demands full competency. As defined by the law, special education is:

> ". . . specially designed instruction, at no cost to parents or guardians, to meet the unique needs of a handicapped child, including classroom instruction, instruction in physical education, home instruction, and instruction in hospitals and institutions."

Since special education is special and involves only instruction which is specially designed and directed to meet the unique needs of a handicapped

child, for many children, special education will not be the totality of their education (Weintraub, 1977).

This is where vocational education must come into the picture and provide teachers as well as facilities specially geared toward meeting the needs of handicapped students. Only experience will finally determine what is or is not appropriate instruction for handicapped students in the special vocational needs classroom, but development of teacher competencies for working with the handicapped student is essential to any success that may be achieved.

THE HANDICAPPED LEARNER

DEFINITION OF TERMS

Handicapped students are entitled to a free appropriate public education. The question now arises as to the definition of a handicapping condition. Public Law 94-142 defines handicapped children as:

> ". . . those children evaluated . . . as being mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, other health impaired, deaf-blind, multi-handicapped, or as having specific learning disabilities, who because of those impairments need special education and related services."

Included herein for the purpose of clarity are brief descriptions of these terms (Franken, 1977; PL. 94-142; University of Nebraska, 1978). In the actual school situation, handicapped pupils are generally formally identified by child study teams in the local educational agency. The terms "special needs students" and "handicapped students" are used interchangeably since special needs implies the existence of a handicap in school, whether due to disability or disadvantagement.

> MENTALLY RETARDED. Individuals scoring two or more standard deviations below the mean in intelligence tests and showing from mild to profound deficits in adaptive behavior, particularly in vocational performance and social responsibility.

Included among those defined as mentally retarded are a wide variety of individuals encompassing a vast range of etiology and manifestations. Over 200 causes have been identified.

DEAF. Individuals with a hearing impairment, evaluated with a corrective device, which is so severe that the child's hearing is nonfunctional for the purpose of educational performance.

HARD OF HEARING. Individuals with a hearing impairment, evaluated with a corrective device, which adversely affects the child's educational performance, but which is not included under the definition of "deal." (Each professional field involved in the study of hearing impairment classifies according to it's particular specialization and purposes.)

SPEECH IMPAIRED. Individuals with a language impairment such as impaired articulation, stuttering, voice impairment, or a receptive or expressive verbal language impairment, evaluated with a corrective device, which adversely affects the child's educational performance.

VISUALLY HANDICAPPED. Individuals with a visual impairment, evaluated with a corrective device, which adversely affects the child's educational performance, and includes both partially sighted and blind children. The general criterion for functional blindness is the inability of the child to read newsprint.

SERIOUSLY EMOTIONALLY DISTURBED. A student with a condition exhibiting one or more of the following characteristics over a long period of time to a marked degree:

an inability to learn which cannot be explained by intellectual, sensory, or health factors;
an inability to build or maintain satisfactory interpersonal relationships with peers and teachers;
inappropriate types of behavior or feelings under normal circumstances;
a general pervasive mood of unhappiness or depression or a tendency to develop physical symptoms of illness.

This term does not include socially maladjusted children who are not emotionally disturbed.

ORTHOPEDICALLY IMPAIRED. Individuals with a severe skeletal impairment, evaluated with a corrective device, which adversely affects a child's educational performance. The term includes impairments caused by congenital anomaly, disease, or accident.

OTHER HEALTH IMPAIRED. An individual with limited strength, vitality, or alertness due to chronic or acute health problems such as a heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, diabetes or any illness.

> SPECIFIC LEARNING DISABILITY. A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations. The term includes such conditions as perceptual handicaps, brain injury, minimal brain disfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps of mental retardation, or of environmental, cultural or economic disadvantage.

CHARACTERISTICS OF SPECIAL VOCATIONAL EDUCATION PROGRAMS

A review of the literature concerning existing teacher preparation programs reveals a basic striving among teacher educators to clarify the relationship between manpower needs and the realistic roles which teachers are asked to fill. The functioning in different personnel roles that is required of vocational teachers in a mainstreaming situation demands that specific competencies be developed to fulfill each of these roles.

Participation of teams of vocational and special education teacher educators in two national workshops at the University of Illinois and a third at the University of Kentucky has reflected a readiness for action planning in the area of vocational programming for special needs students. The body of information which exists in this area is small and is currently in a developmental stage. One response to this situation has been to try to bring together those kinds of ideas and sources of information that have been reported as helpful to others in their planning and development thus far (Albright, 1977).

To fulfill this objective, two national workshops held at the University of Illinois resulted in the publication of a handbook identifying twenty-five diverse, yet viable, approaches to preparing teachers of special needs students (Albright, 1977). There have been an increasing number of research efforts to trace the derivation and validation of a set

of training activities for special educators engaged in pre- and in-service training of vocational and special educators (Mirkin, 1976). An effort sponsored by the Illinois State Office of Education resulted in a document which describes many of the existing university level special and vocational teacher preparation programs as well as synopses of some competency identification studies that have been published in the area of vocational teacher education (Abbas, 1976). In 1975, the National Association of Vocational Education Special Needs Personnel conducted a survey to provide a sampling of successful vocational special needs programs throughout the country and to make available to educators examples of vocational programs that meet the needs of disadvantaged and handicapped students in schools. The study resulted in a listing of One Hundred Successful Vocational Special Needs Programs with a synopsis of each.

At the present time, cooperative programs involving special and vocational educators are extremely rare although the current educational climate seems to favor cooperation between the two fields in developing viable programs for serving the handicapped. It has been speculated that the special class or clinical teaching model in which most special educators have been trained is not particularly relevant to the problem solving and decision-making activities needed to serve the handicapped student today (Mirkin, 1976). Vocational educators are increasingly training their own students to work with the handicapped while special educators attempt to train their students to deliver pre-vocational skills to the handicapped through sheltered workshop experiences and part-time cooperative programs (Albright, 1977).

In the area of teacher certification vocational teachers for special needs classes currently must meet requirements for state certification in

the vocational area to be served (Alabama State Department of Education, 1975). Since passage of the Vocational Amendments of 1968, a few states have adopted certification standards which require certain competencies for personnel who provide vocational programming for special needs learners. Special educators at the secondary level have long been free to teach in pre-vocational and work-study programs without any certification requirements other than basic special education requirements other than basic special education requirements. Similarly, vocational educators have been relatively free to teach special needs students of any type without specific preparation (Albright, 1977). It appears that at this time a leadership void exists in certification standards which allows teachers with varying degrees of competency to fill similar roles.

As boundary lines between special and vocational education overlap with other territories we will probably see a reduction in the number of different kinds of special education certificates, more active participation in expanding programs of continuing education as a means of enhancing professional development and performance, and, perhaps most important of all, more individualized responsibility by special and vocational educators to document their own competencies and performances (Reynolds, 1973).

TEACHER COMPETENCIES WHICH HAVE BEEN IDENTIFIED AS ESSENTIAL FOR SPECIAL VOCATIONAL EDUCATION TEACHERS

The process of providing the handicapped with marketable occupational skills has to the present time been largely neglected and misunderstood by members of the educational community. Teacher educators must take an active role in identifying teacher competencies needed in working with the handicapped and educating their students so that these competencies are developed before new teachers are certified.

With this in mind several model programs identifying and assessing teacher competencies can be identified from the literature. These form a starting point for the development of a list of competencies needed by special and vocational educators working with handicapped learners.

In an appraisal of competency based teacher education programs, H. S. Broudy points out that the affective domain cannot always be measured by behaviors and vocational teacher education must be aware of this when considering the application of competency based teacher education to their program (Broudy, 1975)

In a paper related to teacher competencies in working with EMR students, Bitter stresses the similarity in educational needs of all adolescents and the need to place the emphasis on learning how to learn and think, rather than what to know and remember. Competencies of teachers suggested in the study include resourcefulness in providing learning experiences rather than emphasis on teaching methods and the capability to identify and understand the needs of the individual student. It is suggested that educational programming should emphasize the pursuit of individual and group interests by students through activities and experiences. Further, teacher training programs can facilitate this approach by developing teacher resourcefulness and the guidance and communication skills necessary for facilitation of learning (Bitter, 1971).

Blackwell, in a study investigating the attitudes, characteristics, and personalities of 70 teachers of trainable mentally retarded students, indicates 28 specific teacher behavioral competencies and concurs with Bitter in many areas. Emphasis is placed on the ability of the teacher to build a feeling of personal worth in the student (Blackwell, 1972).

The Habilitation Personnel Training Project has designed and created a sequence of 29 competency based instructional modules, arranged in seven clusters, for training secondary special educators. Competencies covered in the modules fall into four broad areas: 1) identification of student needs, 2) specification of the habilitation program suitable for each student, 3) implementation of the suitable habilitation program, and 4) evaluation of the habilitation program.

A more extensive classification system of teacher competencies which classifies objectives and related materials within competency categories for teachers was published by Dodl and the Florida Department of Education in 1972. It is composed of seven general categories with from five to eight subcategories each. The general categories are: 1) assessing and evaluating student behavior, 2) planning instruction, 3) conducting and implementing instruction, 4) performing administrative duties, 5) communicating and interacting, 6) developing personal skills, and 7) developing the pupil self.

In a teacher preparation model for interrelated areas in special education, the goals of teacher education are stated by defining similar competency areas to those defined by Dodl. These are referred to as "Major Tasks." A set of sub-objectives, or "enablers" lead the teacher toward the satisfactory performance of a behavioral objective (Schwartz, 1971).

Competencies identified by the vocational education faculty at Wayne State University as needed by the pre-service teacher for teaching in the areas of vocational education also correspond to the seven general categories outlined by Dodl. Also included are performance objectives and courses to be used in the acquisition of these competencies in subject matter and methods areas of vocational education. Although no specific reference to the handicapped learner is made, the same competencies are

applicable (Cook, 1972).

Cotrell and others developed a list of 390 competencies for vocational education teachers using introspection and interview techniques. Competencies were identified for ten areas, seven of which correspond to Dodl's. In addition these include competencies in the areas of school/community relations, vocational student organizations and professional role development. Also included are criteria for the performance of each of the competencies (Cotrell, et al, 1972).

Another pre-service occupational program developed by the Illinois State University, Normal, Illinois, uses a module-based approach for delivering competencies to vocational educators. Each self-instructional module includes a tape, filmstrip and script which cover performance objectives, enabling behaviors, pre-assessment, learning activities and evaluation. The student's work may be submitted for evaluation by the teacher at any point in the course (Hackett, 1974).

Harris developed a model for competency specification that is appropriate for both pre-service and in-service preparation of leadership personnel. Competencies are specified and a model for assessing competencies was developed. One half of the study is composed of an appendix providing critical competencies with rationale statement and performance examples (Harris, 1975).

An attempt to identify competencies important to vocational education teachers of the disadvantaged and handicapped was conducted in Virginia in 1975. Those competencies ranked as most important by 108 vocational education personnel included knowledge of the characteristics of handicapping conditions, identification and use of diagnostic techniques, interest in the handicapped population being worked with, knowledge of appropriate teaching methods, identification and evaluation of progress, management of discipline problems, ability to relate to people regardless of discriminative

characteristics and practical experiences with handicapped persons (Sheppard, 1975).

Recurrent in the efforts of each of the studies reviewed is an attempt to identify competencies referred to by Stodden and others as "interpersonal competencies." These include the factors of human interaction,

> "the process of implication and inference that occurs non-verbally within and around the deliberate verbal exchange of information. While it is more subtle than the exchange of verbal information, it is no less powerful with respect to the outcomes of learning for it defines the relationship context of the learning environment."

Thus, an attempt is made to include competencies in the affective domain in addition to those in the cognitive and psychomotor domains.

This is evident in each of the eight "unique teacher competencies" identified by the University of Nebraska for special vocational needs teachers.

1. The ability to recognize special instructional problems associated with different rates of development.

2. Ability to identify educational and behavioral goals in terms of student's handicap.

3. Adaptation of the physical and instructional environment for specific children about the sensory, physical, emotional, and social states in the light of information gained from teachers, physicians and non-instructional consultants.

4. Ability to aid students in defining goals and objectives that are achievable in terms of his special limitations.

5. Ability to assist students in understanding his/her limitations.

6. Referral of special needs students to qualified personnel agencies and/or provision of appropriate occupational and educational information.

7. Referral of special needs students to qualified agencies and/or provision of assistance with personal, social, or scholastic problems.

8. Ability to aid parents of special needs students in defining realistic goals for their children.

Teacher educators in vocational and special education alike must realize the impact of these trends and apply them to their own personal preparation programs in order to insure teacher competency in their areas.

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METHODOLOGY AND DESIGN

This project was concerned with two major areas: 1) Identification of competencies needed by vocational educators who teach the handicapped and 2) strategies for developing these competencies. The initial phase of the project entailed a critical review of the literature in order to determine the current state of the art and to determine competencies identified previously. The literature search revealed a number of studies in which a common core of competencies were identified and validated using various groups of educators.

The number of competencies identified in the abovementioned studies ranged from seven to approximately 165. As the various research reports were reviewed, each competency statement identified by the researchers was written on a card in order to later sort the competency statements and to eliminate duplication. After reviewing all identified competency statements, 123 competency statements were selected by the project staff. These statements were viewed to be separate and distinct competencies needed by vocational teachers who are to work with the handicapped.

The competency statements were then grouped under seven major headings:

1) Classroom management, planning and teaching methods
2) Coordination of cooperative vocational education
3) Counseling and human relations
4) Curriculum development
5) Assessment of student progress and analysis of student needs
6) Program management
7) Professional development

In order to determine the accuracy and appropriateness of the identified competencies. A panel of consultants was formed to review the competencies and to assist in the development of the questionnaire which would later be administered to three groups of educators in the Commonwealth of Kentucky.

In order to bridge the gap between special education and vocational education personnel, it was considered essential that these groups of professionals be represented on the panel of consultants. Furthermore, the successful completion of the project was also dependent upon the involvement of professionals in the Bureau of Vocational Education and Bureau of Education for the Handicapped. The panel, therefore, had representatives from the Bureaus, special educators, school administrators who have had extensive experience with handicapped students, and vocational teachers who have had responsibility for working with handicapped persons.

The panel reviewed the long list of competencies. The primary purpose of this review was to determine which of the identified competencies were essential to teachers of handicapped youth and adults. One additional question was asked regarding each competency, "Is this competency a part of a regular vocational teacher education program?" The primary concern was to determine essential competencies but not to duplicate those already incorporated into existing certification programs.

Using the above guidelines, the panel then selected 62 competencies which were deemed to be essential but not a part of the regular vocational teacher education curriculum. A questionnaire was then developed using the 62 competencies. A "Likert" like scale was utilized to determine the importance, and frequency of performance for each competency. The identified competencies were grouped under the seven major areas of concern mentioned previously.

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This instrument was then field tested with University Personnel in the Special Education and Vocational Education departments of several universities of the state. Practitioners in the public schools were also included in the field test. The primary purpose of the field test was to determine the appropriateness of the instrument as well as the reaction each individual might have to the individual competency statements.

The comments and recommendations which were made by the field test participants were utilized in revising the instrument. In developing the final instrument, it was determined that each respondent should indicate how important the competency was, to estimate the frequency of performance, i.e.: daily, weekly, monthly, etc. and to indicate their confidence level in terms of their ability to meet the specified competency. Of particular importance to this study was the confidence level of vocational teachers who may or may not have worked with handicapped youth and adults, but who may have these individuals in their classrooms and laboratory in the future.

SAMPLE SIZE AND SAMPLE SELECTION

Three groups of teachers were included in this study; special education teachers, special vocational education teachers, and vocational teachers. In order to get as representative sample as possible a random sample of all identifiable teachers, in each of the groups, was selected from the fourteen vocational regions of the state.

The questionnaires were mailed with a stamped self-addressed envelope. One hundred and eighty-one questionnaires were mailed with nearly equal representation in each group. After a three week period a follow-up letter was mailed to those who had not responded. Ninety-three usable questionnaires were returned. Forty special education teachers responded, 24 special vocational education and 29 vocational education teachers returned questionnaires for a total response of 51.3%.

FINDINGS

A) Results of the Questionnaire

Responses to the questionnaire developed by the project staff (See Appendix B) were received by 93 persons in Kentucky representing the areas

of special educators (N = 40), special vocational educators (N = 24), and vocational educators (N = 29) for a total response of 51.3% of all questionnaires mailed out. Teacher educators were not included in the sample because a majority of them had participated in the field test of the instrument.

The data obtained from the questionnaire was prepared and two categories were subjected to a statistical treatment to determine if a significant difference between the three groups existed. In order to accomplish this the Statistical Package for Social Science was used and subprogram T-test was used to process the data. The primary area of concern was frequency of performance and importance. The subprogram, Frequencies was utilized to summarize the confidence level of each respondent; no attempt was made to determine areas of significant differences.

Data found to be significant at the .05 level are determined to be areas of disagreement.

There was considerable agreement upon the importance of the listed competencies. Table 1 are those in which there was a significant difference (see Appendix B for complete listing of competencies on the questionnaire).

For the purpose of statistical testing and inferences to be drawn from this study, the following hypotheses were stated:

Hypotheses one: There will be no significant difference in agreement with respect to importance upon individual statements among the three groups.

Hypotheses two: There will be no significant difference in the frequency of performance among the three groups.

An analysis of the data concerning hypotheses one revealed considerable amount of agreement among vocational teachers and special education teachers

regarding the importance of the identified competencies. Table I is presented to indicate the almost total agreement which existed regarding the importance of the competency. Only one item was found in which there was a significant difference regarding its importance.

TABLE I

Importance of Identified Competencies

and Areas of Disagreement Between Vocational and Special Education Teachers

Competency	Group Mean Score		df	T-Value
	Vocational Ed. (N = 29)	Special Ed. (N = 40)		
(8) Employ oral questioning techniques to insure the handicapped student's comprehension and to determine the effectiveness of instruction.				

While there was a significant difference, it should be noted that the mean score of these two groups indicate that both groups consider the competency to be of considerable importance.

The data was also analyzed to determine the amount of agreement existing between vocational educators and special vocational education teachers. Table II presents the results of the test of significance between these two groups.

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*$p < .05$

TABLE II

Importance of Identified Competencies

and Areas of Disagreement Between Vocational

and Special Vocational Education Teachers

Competency	Group Mean Score		df	T-Value
	Voc. Ed. (N = 29)	Spec. Ed. (N = 24)		
(3) Select and locate instructional materials appropriate for the various handicapping conditions.	4.62	4.04	51	-2.06*
(9) Employ "live-work" or "hands-on" method of learning.	3.86	4.62	51	2.32*
(18) Conduct orientation for available academic and vocational programs.	3.52	2.54	51	2.03*
(19) Identify entry level jobs in the community.	3.66	2.67	51	2.13*
(24) Possess knowledge of available services both in and out of school. In school services - other teachers, guidance counselors, vocational rehabilitation services, vocational education services, social workers. Services within the community - mental health centers, guidance clinics, medical facilities. Financial resources available.	4.34	3.13	51	-2.83**

TABLE II

Competency	Group Mean Score		df	T-Value
	Voc. Ed. (N = 29)	Spec. Ed. (N = 24)		
(26) Identify instructional needs of handicapped students in obtaining marketable vocational skills and develop, select and use instructional methods, materials and strategies to develop these skills.	4.38	2.50	51	-3.91**
(27) Identify and use school and nonschool resources that may contribute to vocational instruction for handicapped secondary students - develop academic skills through vocational programs.	4.03	3.13	51	-2.10*
(47) Interpret results of vocational tests.	3.86	3.00	51	-2.06*
(55) Complete state records and contribute to individualized education plans.	4.10	3.29	51	-2.04*
(56) Receive training in diagnostic and prescriptive teaching.	3.79	2.96	51	-2.01*
(58) Possess knowledge of available remedial techniques.	4.14	3.13	51	-2.73**
(62) Have as a goal the strengthening of the self-image of handicapped students.	4.79	4.00	51	-2.44*

*p < .05

** < .01

It was found that special vocational teachers and special education teachers were in agreement on 50 of the 62 items. One item in which the greatest amount of disagreement was item 26 which dealt with identifying instructional needs of handicapped students in obtaining marketable skills. The vocational teachers ranked this item considerably higher than did the special vocational teachers.

Table III presents the statistical test of significance considering the importance of the competencies as seen by the special vocational teachers and special education teachers surveyed. These two groups exhibited the greatest amount of disagreement for those in which comparisons were made. There was agreement on 40 of the 62 items. However, of the 22 items listed in Table III, the special vocational education teachers consistantly ranked each item as less important than did the special education participants.

TABLE III

Importance of Identified Competencies

and Areas of Disagreement Between Special Vocational Education

and Special Education Teachers

Competency	Group Mean Score		df	T-Value
	Spec. Voc. Ed. (N = 24)	Spec. Ed. (N = 40)		
(2) Prescribe alternate reading activities.	3.46	4.18	62	-2.31*
(7) Group students for small group instruction according to diagnostic ability.	3.83	4.55	62	-2.79**
(8) Employ oral questioning techniques to insure the handicapped student's comprehension and to determine the effectiveness of instruction.	4.25	4.77	62	-2.93**
(22) Work with teacher aids and other paraprofessionals.	2.21	3.68	62	-3.27**
(23) Incorporate business and industrial manuals in curriculum.	2.42	3.43	62	-2.50*
(24) Possess knowledge of available services both in and out of school. In school services - other teachers, guidance counselors, vocational rehabilitation services, vocational education services, social workers. Services within the community - mental health centers, guidance clinics, medical facilities. Financial resources available.	3.13	4.20	62	-2.67**

The second hypothesis to be tested involved the frequency of performance of the competencies.

A comparison was made between vocational teachers and special education teachers regarding the frequency of performance. There was considerable differences in this area. Table IV indicates forty-two items were significantly different. Special education teachers consistently indicated that their frequency of performance was daily or weekly whereas vocational teachers indicated they performed the tasks occasionally or never.

TABLE IV

Frequency of Performance

Vocational Education vs. Special Education

Competency	Group Mean Score		df	T-Value
	Voc. Ed. (N = 29)	Spec. Ed. (N = 40)		
(2) Prescribe alternate reading activities.	3.17	4.17	67	-3.30**
(3) Select and locate instructional materials appropriate for the various handicapping conditions.	3.89	4.45	67	-2.28**
(6) Construct a system of reporting student progress to students and parents and chart student progress.	3.07	4.00	67	-3.59**
(7) Group students for small group instruction according to diagnostic ability.	3.38	4.55	67	-3.63**
(12) Include units on the importance of the home in the education of exceptional children.	2.62	3.70	67	-3.83**
(13) Adjust adequately to problems arising from the integration of handicapped children into the regular classroom.	3.10	4.30	67	-2.99**
(15) Identify behavioral objectives.	3.41	4.10	67	-2.13*
(16) Implement cooperative teaching efforts between vocational and special educators.	3.90	3.75	67	-2.57*

TABLE IV

Competency	Group Mean Score		df	T-Value
	Voc. Ed. (N = 29)	Spec. Ed. (N = 40)		
(17) Inform employers of their responsibilities.	2.07	3.33	67	-3.27**
(20) Conduct an employer appreciation program.	1.76	2.68	67	-2.36*
(21) Construct a procedure for job relocation or rotation.	1.52	2.80	67	-3.37**
(23) Incorporate business and industrial manuals in curriculum.	2.51	3.43	67	-2.37*
(24) Possess knowledge of available services both in and out of school. In school services - other teachers, guidance counselors, vocational rehabilitation services, vocational education services, social workers. Services within the community - mental health centers, guidance clinics, medical facilities. Financial resources available.	3.07	4.20	67	-3.18**
(28) Conduct a successful home visitation and conduct a parent-teacher conference.	2.00	3.70	67	-4.92**
(29) Conduct a student conference.	3.35	4.23	67	-2.64**
(30) Conduct a teacher-to-teacher conference.	2.93	3.98	67	-2.93**

TABLE IV

Competency	Group Mean Score		df	T-Value
	Voc. Ed. (N = 29)	Spec. Ed. (N = 24)		
(31) Identify symptoms of drug abuse as compared to use of prescribed medicines.	2.62	3.80	67	-3.22**
(32) Identify personality patterns.	2.97	3.68	67	-2.00*
(33) Develop a system whereby students can determine their own values and relate these to others.	2.72	3.83	67	-3.50**
(34) Counsel students and parents.	2.69	3.93	67	-3.62**
(35) Design and organize the physical plan of a classroom or make modifications to an existing classroom to suit handicapping conditions to students.	3.10	4.35	67	-4.68**
(36) Assess student reading level.	2.90	4.45	67	-5.36**
(37) Assess ability of student to modify behavior.	2.76	4.33	67	-5.06**
(38) Diagnose reading problems.	2.69	4.35	67	-4.61**
(39) Evaluate student reading progress.	2.66	4.40	67	-5.15**
(40) Diagnose specific reading difficulties.	2.41	4.40	67	-5.73**
(41) Identify physical factors which contribute to reading difficulty.	2.72	4.23	67	-4.61**

TABLE IV

Competency	Group Mean Score		df	T-Value
	Voc. Ed. (N = 29)	Spec. Ed. (N = 40)		
(42) Identify intellectual factors contributing to reading difficulties.	2.66	4.18	67	-4.69**
(43) Administer appropriate diagnostic tests.	2.24	4.28	67	-6.07**
(44) Assess student comprehension of math concepts.	3.31	4.28	67	-2.66**
(45) Identify educational factors which contribute to reading difficulties.	2.52	4.20	67	-5.60**
(46) Utilize results of diagnostic tests.	2.83	4.25	67	-4.13**
(47) Interpret results of vocational tests.	2.48	3.58	67	-3.00**
(49) Conduct a student followup study.	2.34	3.10	67	-2.27*
(50) Identify resource persons.	2.72	3.83	67	-3.63**
(51) Establish a student tutoring program.	2.24	3.30	67	-2.81**
(53) Understand terminology of handicapping conditions.	3.41	4.43	67	-3.41**
(54) Implement program modifications.	3.10	4.15	67	-3.26**
(56) Receive training in diagnostic and prescriptive teaching.	2.10	4.03	67	-6.27**

TABLE IV

Competency	Group Mean Score		df	T-Value
	Voc. Ed. (N = 29)	Spec. Ed. (N = 40)		
(57) Receive training in behavior management techniques.	2.31	3.80	67	-4.80**
(58) Possess knowledge of available remedial techniques.	3.03	4.35	67	-4.39**
(59) Possess knowledge of the effects of disadvantagements and handicaps on human development.	3.28	4.18	67	-2.94**
(60) Understanding of the rationale behind programming students into least restrictive environment.	2.93	4.30	67	-4.04**
(61) Basic knowledge of the adolescent Formal education (adolescent psychology) Practical experience gained in working with adolescents.	3.21	4.25	67	-3.01**

In comparing the frequency of performance between special vocational teachers and special educators, there was agreement upon only 7 of the 62 items. The special education teachers again consistently indicated they performed the competency daily or weekly while the special vocational educators performed the competency occasionally or never. See Table V. The greatest number of competencies found to be significantly different occurred between these two groups.

TABLE V

Frequency of Performance

Special Vocational Education vs. Special Education

Competency	Group Mean Score		df	T-Value
	Sp. Voc. Ed.	Sp. Ed.		
(2) Prescribe alternate reading activities.	2.91	4.18	61	-3.89**
(3) Select and locate instructional materials appropriate for the various handicapping conditions.	3.21	4.45	61	-3.72**
(4) Identify emotional factors that affect classroom environment.	3.26	4.50	61	-4.18
(6) Construct a system of reporting student progress to students and parents and chart student progress.	2.60	4.00	61	-4.54
(7) Group students for small group instruction according to diagnostic ability.	3.30	4.55	61	-3.75
(8) Employ oral questioning techniques to insure the handicapped student's comprehension and to determine the effectiveness of instruction.	4.03	4.77	61	-2.48*
(10) Employ role-playing and simulation techniques.	2.83	3.50	61	-2.12*
(12) Include units on the importance of the home in the education of exceptional children.	2.39	3.70	61	-3.68

TABLE V

Special Vocational Education vs. Special Education

Competency	Group Mean Score		df	T-Value
	Sp. Voc. Ed.	Sp. Ed.		
(14) Be flexible and adaptable in establishing viable alternatives in a variety of situations.	3.26	4.30	61	-2.39*
(16) Implement cooperative teaching efforts between vocational and special educators.	2.26	3.75	61	-4.28
(17) Inform employers of their responsibilities.	1.91	3.33	61	-3.33
(18) Conduct orientation for available academic and vocational programs.	2.00	3.05	61	-2.48*
(19) Identify entry level jobs in the community.	2.21	3.35	61	-2.66
(20) Conduct an employer appreciation program.	1.26	2.68	61	-4.05
(21) Construct a procedure for job relocation or rotation.	1.52	2.80	61	-3.07
(22) Work with teacher aids and other paraprofessionals.	1.96	3.68	61	-3.89
(23) Incorporate business and industrial manuals in curriculum.	2.04	3.43	61	-3.63

TABLE V

Special Vocational Education vs. Special Education

Competency	Group Mean Score		df	T-Value
	Sp. Voc. Ed.	Sp. Ed.		
(24) Possess knowledge of available services both in and out of school. In school services - other teachers, guidance counselors, vocational rehabilitation services, vocational education services, social workers. Services within the community - mental health centers, guidance clinics, medical facilities. Financial resources available.	2.48	4.20	61	-4.31
(25) Analyze employment situations, make job breakdown and descriptions, and transform job requirements into educational programs.	1.91	3.58	61	-4.08
(26) Identify instructional needs of handicapped students in obtaining marketable vocational skills and develop, select and use instructional methods, materials and strategies to develop these skills.	1.69	3.93	61	-5.76

TABLE V

Special Vocational Education vs. Special Education

Competency	Group Mean Score		df	T-Value
	Sp. Voc. Ed.	Sp. Ed.		
(27) Identify and use school and non-school resources that may contribute to vocational instruction for handicapped secondary students - develop academic skills through vocational programs.	2.39	4.00	61	-4.13
(28) Conduct a successful home visitation and conduct a parent-teacher conference.	2.30	3.70	61	-3.81
(29) Conduct a student conference.	3.09	4.23	61	-3.07
(30) Conduct a teacher-to-teacher conference.	3.04	3.98	61	-2.40*
(31) Identify symptoms of drug abuse as compared to use of prescribed medicines.	2.57	3.80	61	-3.51
(33) Develop a system whereby students can determine their own values and relate these to others.	2.70	3.83	61	-3.15
(34) Counsel students and parents.	2.22	3.93	61	-5.03
(35) Design and organize the physical plan of a classroom or make modifications to an existing classroom to suit handicapping conditions to students.	2.43	4.35	61	-5.19

TABLE V

Special Vocational Education vs. Special Education

Competency	Group Mean Score		df	T-Value
	Sp. Voc. Ed.	Sp. Ed.		
(36) Assess student reading level.	2.87	4.45	61	-4.41
(37) Assess ability of student to modify behavior.	2.83	4.33	61	-4.71
(38) Diagnose reading problems.	2.52	4.35	61	-4.70
(39) Evaluate student reading progress.	2.48	4.40	61	-4.86
(40) Diagnose specific reading difficulties.	2.43	4.40	61	-4.99
(41) Identify physical factors which contribute to reading difficulty.	2.35	4.23	61	-4.81
(42) Identify intellectual factors contributing to reading difficulties.	2.52	4.18	61	-4.00
(43) Administer appropriate diagnostic tests.	1.70	4.28	61	-8.17
(44) Assess student comprehension of math concepts.	2.39	4.28	61	-4.87
(45) Identify educational factors which contribute to reading difficulties.	2.22	4.20	61	-5.85
(46) Utilize results of diagnostic tests.	2.09	4.25	61	-6.23
(47) Interpret results of vocational tests.	1.91	3.58	61	-4.06

TABLE V

Special Vocational Education vs. Special Education

Competency	Group Mean Score		df	T-Value
	Sp. Voc. Ed.	Sp. Ed.		
(48) Devise alternative methods of grading.	2.48	3.53	61	-2.62*
(49) Conduct a student followup study.	1.91	3.10	61	-3.09
(50) Identify resource persons.	2.26	3.83	61	-4.62
(51) Establish a student tutoring program.	1.74	3.30	61	-3.98
(52) Develop, select and use methods to assess individual student skills, aptitudes, liabilities and preference with respect to acquiring marketable vocational skills.	2.52	3.60	61	-2.82
(53) Understand terminology of handicapping conditions.	2.26	4.43	61	-6.73
(54) Implement program modifications.	2.22	4.15	61	-4.86
(55) Complete state records and contribute to individualized education plans.	2.26	3.88	61	-4.12
(56) Receive training in diagnostic and prescriptive teaching.	1.87	4.03	61	-5.70
(57) Receive training in behavior management techniques.	1.70	3.80	61	-5.90

TABLE V

Special Vocational Education vs. Special Education

Competency	Group Mean Score		df	T-Value
	Sp. Voc. Ed.	Sp. Ed.		
(58) Possess knowledge of available remedial techniques.	1.87	4.35	61	-7.50
(59) Possess knowledge of the effects of disadvantagements and handicaps on human development.	2.09	4.18	61	-6.51
(60) Understanding of the rationale behind programming students into least restrictive environment.	2.13	4.30	61	-5.74
(61) Basic knowledge of the adolescent Formal education (adolescent psychology) Practical experience gained in working with adolescents.	2.13	4.25	61	-5.20
(62) Have as a goal the strengthening of the self-image of handicapped students.	3.00	4.73	61	-3.90

Vocational educators and special vocational educators were in agreement upon the greatest number of competencies regarding the frequency of performance. They were in agreement on 53 of the 62 items. However, of those items in which there was significant differences, the vocational education teachers indicated a higher frequency of performance. Table VI is provided to present those items found to be significantly different.

TABLE VI

Vocational Education vs. Special Vocational Education

Competency	Group Mean Scores		df	T-Value	Level of Significance
	Voc. Ed.	Sp. Voc. Ed.			
(25) Analyze employment situations, make job breakdown and descriptions, and transform job requirements into educational programs.	2.86	1.91	50	-2.26	.028
(26) Identify instructional needs of handicapped students in obtaining marketable vocational skills and develop, select and use instructional methods, materials and strategies to develop these skills.	3.41	1.70	50	-4.04	.000
(53) Understand terminology of handicapping conditions.	3.41	2.26	50	-2.67	.010
(54) Implement program modifications.	3.10	2.22	50	-2.17	.035
(55) Complete state records and contribute to individualized education plans.	3.24	2.26	50	-2.54	.014
(58) Possess knowledge of available remedial techniques.	3.03	1.87	50		.006

TABLE VI

Vocational Education vs. Special Vocational Education

Competency	Group Mean Scores		df	T-Value	Level of Significance
	Voc. Ed.	Sp. Voc. Ed.			
(59) Possess knowledge of the effects of disadvantagements and handicaps on human development.	3.28	2.08	50		.005
(61) Basic knowledge of the adolescent Formal education (adolescent psychology) Practical experience gained in working with adolescents.	3.21	2.13	50		.031
(62) Have as a goal the strengthening of the self-image of handicapped students.	4.52	3.00	50		.002

2-Tail Probability
* P < .05
**P < .01

It should be noted that only five items were found in which there was no agreement among the groups: Competency #53, 54, 58, 59 and 61. In each case, the vocational teachers indicated they performed the task less frequently than the others.

In order to determine the competencies possessed by the target population, a third section of the questionnaire was devoted to each individual's self assessment of their ability to perform the listed competency. The respondents were asked to respond to the five categories: 1) not confident, 2) little confidence, 3) somewhat confident, 4) considerable confidence, and 5) very confident. In analyzing the data, a frequency distribution was utilized. Table VII presents those competencies which vocational teachers indicated they were somewhat or very confident of performing. Any competency statement in which 70% or more of the respondents indicated they were very confident or had considerable confidence are not included in this table. Twenty-two of the 62 competencies met this criteria.

When considering the total number of identified competencies, there is a strong indication that further in-service work is desirable.

TABLE VII

Self-Identified Confidence Level of Vocational Teachers

Competency	% Considerable to Very Confident
(1) Develop positive reinforcement techniques.	93.1
(3) Select and locate instructional materials appropriate for the various handicapping conditions.	82.8
(4) Identify emotional factors that affect classroom environment.	82.8
(5) Utilize math activities in teaching vocational subjects.	74.0
(7) Group students for small group instruction according to diagnostic ability.	92.4
(8) Employ oral questionning techniques to insure the handicapped student's comprehension and to determine the effectiveness of instruction.	77.8
(11) Estimate time sequence for a unit of instruction.	70.8
(13) Adjust adequately to problems arising from the integration of handicpped children into the regular classroom.	70.8
(18) Conduct orientation for available academic and vocational programs.	70.8
(19) Identify entry level jobs in the community.	69.2
(25) Analyze employment situations, make job breakdown and descriptions, and transform job requirements into educational programs.	72.0
(26) Identify instructional needs of handicapped students in obtaining marketable vocational skills and develop, select and use instructional methods, materials and strategies to develop these skills.	81.4

TABLE VII

Self-Identified Confidence Level of Vocational Teachers

Competency	% Considerable to Very Confident
(29) Conduct a student conference.	89.2
(30) Conduct a teacher-to-teacher conference.	80.6
(34) Counsel students and parents.	76.9
(35) Design and organize the physical plan of a classroom or make modifications to an existing classroom to suit handicapping conditions.	78.6
(48) Devise alternative methods of grading.	76.9
(50) Identify resource persons.	76.9
(54) Implement program modifications.	78.6
(55) Complete state records and contribute to individualized education plans.	72.4
(59) Possess knowledge of the effects of disadvantagements and handicaps on human development.	75.0
(62) Have as a goal the strengthening of the self-image of handicapped students.	86.2

Table VIII presents those competencies which special vocational education teachers indicated they felt very confident or had considerable confidence in performing. Again the same criteria of 70% was used in selecting the competency statements. Only five statements met this criteria.

TABLE VIII

Self-Identified Confidence Level of Special Vocational Teachers

Competency	% Considerable to Very Confident
(1) Develop positive reinforcement techniques.	82.6
(6) Construct a system of reporting student progress to students and parents and chart student progress.	76.1
(9) Employ "live-work" or "hands-on" method of learning.	79.2
(14) Be flexible and adaptable in establishing viable alternatives in a variety of situations.	75.0
(15) Identify behavioral objectives.	70.8

While a substantial number of respondents indicated they could perform the various tasks with confidence, there were strong indications that further assistance in many of the general areas is necessary if special vocational educators are to gain the confidence as indicated by special education professionals.

Those competencies in which vocational teachers indicated they were strongest are found in the general classification of classroom management, planning and teaching methods. Eight of the twenty-two competencies were in this category. Coordination competencies and counseling and human

relations competencies was the second area in which vocational teachers indicated their greatest confidence. The remaining high confidence competency statements were distributed about equally across the other general areas. Evaluation of student progress, assignment of grades and development of learning resources appear to be the area in which fewer competencies were selected. Additionally, those competencies of a professional development nature were less likely to be identified as high confidence items.

The high confidence competency statements for the special vocational education teachers were all found in the classroom management, planning and teaching method category. The special vocational education teachers did not indicate high confidence in the other general areas on the questionnaire.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

A review of the findings of this study indicates a high level of agreement between vocational teachers and special education teachers regarding the importance of the identified competency statements. There was disagreement on twelve items between vocational teachers and special vocational education teachers. It should also be noted that vocational education consistently ranked the various competency statements higher than did the special vocational educators. Special vocational educators and special education teachers, exhibited the greatest amount of disagreement concerning the importance of the various competency statements. Twenty-two items were found to be significantly different. Special vocational educators consistantly ranked each item as less important than did the participants from special education.

The second area of concern involved the frequency of performance of each of the competencies. Special educators consistently indicated these competencies were performed daily or weekly, whereas the vocational and special vocational teachers indicated they performed the tasks occasionally or never. The greatest number of competencies found to be significantly different occurred between the special education teachers and special vocational education teachers. While vocational teachers and special vocational teachers appear to be in agreement regarding the frequency of performance, vocational teachers indicated a higher frequency of performance than did the special vocational teachers.

CONCLUSIONS

In light of the findings reported previously the following conclusions can be drawn regarding the specific concerns of this study.

1. All groups ranked the competency statements high in importance with the classroom management, coordination, counseling and human relations competencies ranked consistently of considerable importance. The special education teachers ranked these items, in almost all cases, higher than did the other groups. The special vocational education teachers ranking was below that of the other two groups. This would lead one to the conclusion that experience and knowledge of the characteristics of the handicapped causes teachers to attach greater importance to the identified competencies. It is also concluded, based upon the findings, that preservice and in-service education may be a significant influence in regard to importance and frequency of performance.

2. Vocational teachers and special education teachers view the competency statements in a similar manner in regard to importance.

3. The results of this study indicate a need for special vocational teachers to further their professional development in either special education or vocational education. It appears that work experience, along with certification as a regular school teacher, does not provide the orientation necessary to identify the essential needs and competencies necessary for teaching the handicapped.

RECOMMENDATIONS

The results of the research section of this report, and the evaluation of the in-service education program provides the background for the following recommendation:

1. Since the greatest amount of disparity exists between special vocational educators and the other two groups, vocational and special education, it seems appropriate that these teachers be involved to a greater extent in in-service education activities which will provide them with greater insight into the special needs of handicapped as well as the demands of the world of work.

2. It is also recommended that cooperative efforts, on the part of vocational teachers and special educators be initialed and maintained whenever handicapped students are mainstreamed into regular vocational programs.

3. A systematic in-service program should be developed and implemented in each school district where handicapped students are enrolled in vocational education programs. Vocational teachers should and must develop the necessary competencies which will enable them to deal effectively with the handicapped.

DEVELOPING THE MODEL PROGRAM FOR KENTUCKY

1. INTRODUCTION

Vocational teachers are now finding, and will continue to find, that handicapped students will be enrolled in their programs. This is as it should be. However, these same teachers need to develop the teacher competencies which will enable them to effectively deal with the special needs of handicapped students. Thus far, special methods have not been included in vocational preparation or in-service programs. The model program for Kentucky was developed from the project just described to provide some specific guidelines for the development of these teacher competencies in both vocational preparation programs and in in-service programs.

2. PROCEDURE

The development of the model program was based upon the project goals (objectives) and the activities used to accomplish them. Specifically, the goals were: (1) to identify teacher competencies needed by vocational educators who teach handicapped students and (2) to identify, develop, or modify strategies for acquiring these competencies. The specific activities used to accomplish them were as follows:

a) To identify teacher competencies needed by vocational educators who teach handicapped students.

(1) Determine current state of the art.

a. Conduct thorough search of the literature and develop a report of the findings regarding teacher competencies needed for handicapped learners.

b. Prepare Report of Programs and identify teachers who are currently in charge of on-going programs.

(2) Identify a common core set of competencies needed by all vocational educators and specific program areas.

a. From literature search, develop preliminary survey instrument to determine common core competencies.

b. Submit survey instrument to a panel of experts for advice and revision.

c. Field test instrument with University personnel and practitioners in the public schools.

d. Revise and prepare final instrument.

e. Conduct survey of the vocational teachers and special education teachers working with vocational students with handicapping conditions.

f. Conduct an analysis of competencies as perceived by teachers as needed in relation to identified competencies.

g. Prioritize competencies in relation to training needs for vocational teachers.

h. Submit prioritized list to panel of consultants to review and assist in determining appropriateness of competencies.

(3) Determine competencies of population of vocational educators.

a. From the above list, develop a self-evaluation form.

b. Administer instrument to special vocational teachers to determine competencies they possess.

c. Compile data and prepare report.

(4) Identify training needs.

a. Analyze data to determine training needs.

b. Consult with panel of consultants to determine priority training needs.

b) To identify, modify and/or develop strategies for developing vocational teacher competencies needed for working with handicapped students.

(1) Identify delivery systems currently provided at pre- and in-service levels.

a. Conduct a survey of educational institutions providing programs for exceptional children and vocational education.

b. Identify in-service programs and persons involved which have been conducted for special vocational education in the past three years.

c. Survey literature to determine delivery systems utilized in other states.

(2) Determine delivery system needed at in-service level.

a. Identify types of delivery systems needed for pre-service and in-service.

(3) Develop model program for Kentucky.

a. Develop model program for Kentucky.

b. Review model with panel of consultants, personnel in vocational education and special education, and State Board of Education's Division of Certification.

(4) Field test the model.

a. Revise and finalize model using multi-media materials currently available.

(5) Conduct in-service training for implementation and dissemination.

a. Identify in-service sites.

b. Select participants to attend workshops.

c. Hold two-day workshops.

d. Conduct evaluation of model program.

3. THE MODEL PROGRAM

The model program resulting from these procedures consists basically of a set of competencies along with performance objectives for achieving them; and the dissemination procedure which includes in-service workshops and inclusion in teacher training curriculum.

a. Competencies

The final set of competencies included in the model program were derived from the core set which was identified through the survey described in an earlier section of this report. This set of competencies is condensed from the original set of 62 to a set of 42 and, in addition, each competency is accompanied by a set of performance objectives designed specifically to assist vocational educators develop that competency. The competencies are arranged by categories designed to facilitate program planning and implementation. These categories are:

I. Student Identification

II. Program Planning and Management

III. Classroom Planning and Management

IV. Teaching Methodology

V. Cooperative Vocational Educatior

VI. Counseling and Human Relations

VII. School and Community Resources

The complete set of competencies and performance objectives is presented below.

I. STUDENT IDENTIFICATION

Competency	Performance Objectives
The student will:	
1. Define terms used to describe handicapping conditions.	a) List the categories of handicapping conditions that have been outlined in state and federal guidelines. b) Explain the process of identification, which may be utilized in determining which students meet the criteria established for the various handicapped categories. c) Explain the criteria to be used in establishing that a student is a special needs learner. d) Define the categories of handicapping conditions. e) Given a case study and thorough observation list the characteristics observed while the student is in class.
2. Identify and describe the effects of handicaps on human development.	a) Describe the most common characteristics of all types of handicapping conditions. b) Identify the characteristics which must be professionally diagnosed by a medical doctor, or other licensed professional. c) Given a student with a specific handicapping condition, describe how this impairment appears to effect human development. d) Describe the major factors of human development which are influenced by a given handicapping condition. e) Explain how students are excluded or included into a group and the influence that a handicapping condition might have.

Competency	Performance Objectives
3. Identify behavior patterns which are unique to handicapped individuals.	a) Given a student with a handicapping condition, identify and list behaviors which appear to be distracting the student from the learning task. Observations should be made daily for a week or more. b) Review current publications related to characteristics of handicapped individuals and make a chart listing behavioral patterns of those who are learning and behavior disordered visually impaired, hearing impaired and trainable mentally retarded.
4. Acquire a knowledge of the learning patterns of children and adolescents, particularly as they apply to handicapped individuals.	a) Identify and explain the common characteristics and attitudes which affect learning. b) Describe four ways educators can discover how students prefer to learn. c) Describe the relationship between structure and freedom in learning styles, particularly in view of handicapped students. d) Describe how teachers can structure their instruction to meet students varying needs.
5. List and describe the types of drugs which may be used by handicapped students, and be able to identify possible symptoms of drug abuse.	a) Given a sample of five common drugs, identify each. b) Obtain pertinent information from the appropriate individuals concerning drugs taken by the individual student. c) Using a physician's desk reference, look up the name of all drugs taken and list the possible symptoms associated with drugs. d) Given a list of five drugs commonly used and abused, describe possible behavior of students using or abusing these drugs. e) Describe the teachers rights and responsibilities as they relate to suspected drug abuse cases.

II. PROGRAM PLANNING AND MANAGEMENT

Competency	Performance Objectives
The student will:	
1. State the rationale for programming handicapped students into the least restrictive environment as mandated by PL94-142 and suggest ways in which this can be implemented.	a) List the major requirements of PL94-142. b) Define the "least restrictive environment." c) List factors to be considered in selecting the most appropriate educational placement (least restrictive environment) for the following handicapped children: Learning Disabled, behavior disordered, mentally retarded, visually impaired, hearing impaired and orthopedically handicapped. d) List and define program alternatives for handicapped children who are mainstreamed into regular education. e) Describe the roles of an administrator, parent, special educator, and the vocational educational teacher as they influence the placement of students into each type of program described above.
2. Integrate handicapped children into the regular classroom.	a) Observe handicapped children in the regular classroom and describe specific adjustments which must be made by the teacher and the adjustments which must be made by the other students in the class in interacting with these students. b) Describe ways in which classroom materials and shop or laboratory equipment will need to be modified to meet the needs of handicapped students. c) Assist handicapped students in participating in group activities with handicapped students.
3. Develop a flexible and adaptable plan for establishing viable alternatives for handicapped students in a variety of educational programs.	a) Analyze program needs, and student needs, and list probable areas which will need to be modified. b) Select or design learning activities related to these areas. c) Incorporate these activities into some simple short-term objectives for a particular unit and make them clear and rewarding to the pupil when achieved. d) Identify possible procedures and alternative procedures for helping a student achieve these objectives. e) Assist students in establishing their own goals, objectives and values to meet these objectives. f) Analyze teacher goals, objectives and values as they relate to handicapped students and list those which must be adapted or modified.

II. PROGRAM PLANNING AND MANAGEMENT

Competency	Performance Objective
4. Plan an appropriate instructional program for handicapped students.	a) Compile a list of behavioral objectives appropriate for handicapped students in at least three categories. b) Using simulated data, develop an individualized educational program for one handicapped student. Incorporate the behavioral objectives above into the individual educational plan.
5. Select and locate instructional materials appropriate for students with various handicapping conditions.	a) Using the learner profile analysis - select from available instructional materials those which are appropriate for the specific special needs learner.
6. Estimate time sequence for a unit of instruction.	a) Given a unit of instruction and the learner profile analysis survey other teachers to determine the amount of time necessary for students to meet the objective. b) Based upon the data collected estimate the time required to learn a task.
7. Design and organize the physical plan of a classroom or make modifications to an existing classroom to suit handicapping conditions of students.	a) Use the individualized educational plan of one handicapped student to identify the type of classroom in which he will be placed. b) Use the descriptions of students provided in the student identification section to determine what adaptations or modifications are needed for specific handicapping conditions. c) Design an ideal classroom for student whose individual educational plan was chosen. Describe modifications and adaptations needed. d) Describe in writing, how existing vocational programs need to be modified or changed to meet the needs of special vocational students.
8. Analyze employment situations, write job descriptions, and transform job requirements into educational programs.	a) Given a list of students with specific handicapping conditions, analyze the local and state employment situation to determine potential places of employment. b) Write three job descriptions for specific jobs which are currently available and which are likely to provide place for employment. c) Compare these job descriptions, and analyze the training needs of the previously identified handicapped students. d) Identify or write competency or task statements which are related to each job description. e) Modify each identified objective in order to accommodate the particular handicapping condition.

II. PROGRAM PLANNING AND MANAGEMENT

Competency	Performance Objectives
9. Incorporate business and industrial manuals into the curriculum.	a) Given a series of technical manuals appropriate for a specific occupation, analyze and determine the approximate reading level. b) Select the manuals which are appropriate for the performance objectives. c) Secure adequate copies of business manuals for a class. d) Given a case study of a special need learner, plan an individualized instructional program with the special education teacher. e) Identify the four basic options for a cooperative instructional arrangement. f) Develop a formal procedure for continued cooperative instructional arrangement.
10. Implement co-operative teaching efforts between vocational and special educators.	

Competency	Performance Objectives
The student will:	
1. List and describe behavior management techniques.	a) Read current publications describing behavior modification techniques currently being used in educational programs. b) Write a paper defining and describing behavior modification techniques considered appropriate for use with handicapped children. Include a discussion of the following techniques: 1) Positive reinforcement 2) Negative reinforcement
2. Use positive reinforcement techniques.	a) Observe the use of positive reinforcement techniques in an actual classroom with handicapped students. b) List each technique used with an individual student the number of times it was used, and the result. c) List alternate techniques which might have been used when others failed to produce desired behavior.
3. Identify emotional factors in students which affect the classroom environment.	a) Observe students in a classroom setting and list five specific behaviors which affect the classroom environment - positively or negatively. b) Write a short description of the emotional climate in the classroom which results from each of these behaviors. c) For each behavior, describe a behavior modification technique which would be appropriate for reinforcing or eliminating the behavior.
4. Assess the effect of using behavior modifications techniques in helping students to modify behavior.	a) Choose a behavior modification technique and use it with a student or observe it in use with a student. b) Evaluate its effectiveness by: 1) Recording the number of times a particular behavior (positive or negative) occurs in a specific time period before the technique is used. 2) Recording the number of times the behavior occurs and the modification technique is used in a specific time period. 3) Recording any increase or decrease in the number of times the behavior occurs in a specific time period after the modification technique has been discontinued. c) Write a short statement evaluating the effectiveness of the technique.

III. CLASSROOM PLANNING AND MANAGEMENT

Competency	Performance Objectives
5. Assess student comprehension of math concepts.	a) Review a variety of diagnostic instruments in math which are considered appropriate for children with a learning and behavioral disorder, visually impaired and trainable mentally retarded. b) Select one instrument, use it with one student and list areas of strength and weakness in math.
6. Assess student reading and diagnose reading problems.	a) Select one diagnostic instrument in reading for children who are learning and behavior disordered, visually impaired, and trainable mentally retarded and either administer them to children or observe them being administered. Use these results to diagnose educational factors contributing to reading difficulty. b) Use one instrument selected with a child with one of the handicapping conditions listed above. Identify the strengths and weaknesses of this child in reading.
7. Identify physical factors which contribute to reading difficulty.	a) Review medical reports for 5 children who have visual or physical disorders which might contribute to the reading disorders. b) List disorders observed in each child and describe their effect on the development of reading skills.
8. Identify intellectual factors which contribute to reading difficulty.	a) Review intelligence tests which are appropriate for children who are learning and behavior disordered, visually impaired and trainable mentally retarded and select one test appropriate for each category. b) Select one test for a child in one of the above categories. Write a short report on the test results, indicating the effect these results might have on the ability of the child in learning to read.
9. Identify educational factors which contribute to reading difficulty.	a) Review achievement tests which are appropriate for children who are learning and behavior disordered, visually impaired and trainable mentally retarded and select one test for each category. b) Use the test for one category with at least one child and write a summary of the results, indicating their effect on the child's ability to read. c) Meet with the child's teacher and collect information about the child's educational level and classroom performance as they relate to reading.

Competency	Performance Objectives
10. Prescribe and utilize alternate reading and math activities in teaching vocational subjects for handicapped children.	a) Use simulated results from the sources reviewed above to write an I.E.P. which prescribes alternate reading and math activities for each handicapping condition. b) In the I.E.P. developed above, include specific recommendations for using math and reading activities in teaching vocational subjects.

IV. TEACHING METHODOLOGY

Competency	Performance Objectives
The student will:	
1. (a) Employ oral questioning techniques to insure the handicapped student's comprehension and to determine the effectiveness of instruction. (b) Employ "live-work" or "hands-on" method of learning. (c) Employ role-playing and simulation techniques.	a) Compile a notebook listing the appropriate steps for implementing each of these three techniques with non-handicapped children. b) Meet with persons trained to work with handicapped children following types - mentally retarded, learning and behavior disordered, visually impaired - and compile a list of adaptations of the steps listed above for each handicapping condition. c) Observe these three techniques being used with handicapped children.
2. Adapt available remedial techniques for handicapped students.	a) Review the literature and select at least two publications dealing with remedial techniques. b) Study the techniques considered appropriate for non-handicapped children. c) Review literature in special education and select at least two publications dealing with remedial techniques appropriate for handicapped children. d) Make a chart listing currently used remedial techniques in one column and adaptations needed for handicapped children in a second column.
3. Group students for small group instruction according to diagnostic ability.	a) Study achievement records of a group of handicapped and assign them to small groups based on their ability (not on basis of handicap alone). b) Then study characteristics of the handicapping condition and the recommended instructional group sizes for each type of handicapping condition and determine whether regrouping is necessary. Defend any change made in writing.

Competency	Performance Objectives
4. Establish a student tutoring program.	a) Assume that you are responsible for instructing a group of handicapped students. (Select any type.) b) Become familiar with the characteristics of that type child. c) Contact the counselor of the school in which you work and ask for names of able students who are interested in tutoring. d) Select several of these students and familiarize them with the characteristics of the handicapped children with whom you are working and with the subject they are to tutor. e) Assign one tutor to **each handicapped** child and monitor progress.
5. Learn basic techniques for diagnostic prescriptive teaching.	a) Take a course in diagnostic prescriptive teaching, if possible. b) Review literature and select several current books/articles dealing with this topic and study them. c) Select a current film or filmstrip on diagnostic prescriptive teaching and view it.
6. Construct a system of reporting student progress to students and parents and chart student progress.	a) In addition to the reporting system required by your school system, make a chart listing daily activities of the class. On the chart, indicate each day whether the students performance in each area was satisfactory or unsatisfactory. Go over the chart with each student at the end of each day. b) Develop other methods of charting progress if necessary. Go over any chart with students, individually, and explain their progress carefully. c) Write letter to parents reporting progress or send daily charts home with students.
7. Devise alternate methods of grading.	a) It is preferable to use the same grading methods with handicapped and non-handicapped children. However, if alternate methods are needed for some children, they may be used. b) Study the methods of grading available and select several which emphasize the strengths of students rather than weaknesses. c) Use three different methods with the same group of children over a period of time and select the one to which students respond positively.

V. COOPERATIVE VOCATIONAL EDUCATION

Competency	Performance Objectives
Student will:	
1. Establish the criteria to be used in determining appropriate training station for cooperative vocational education for handicapped students.	a) Demonstrate their understanding of the underlying assumptions regarding the establishment of training stations, by writing paper stating these assumptions. b) Visit three potential training stations and describe in writing the desirable and undesirable characteristics of each. c) Develop a procedure for establishing contact with potential employers for cooperative vocational education programs. d) In cooperation with a training manager, develop training agreements and training plans which will meet the individual needs of handicapped youth.
2. Conduct orientation for available academic and vocational programs.	a) Describe existing cooperative vocational programs. b) Explain the purpose and role of the school, employer, student and parents in establishing a cooperative vocational education program. c) Explain to the student and parent the available vocational programs and the effort directed toward meeting the needs of handicapped youth.
3. Identify training stations that provide entry level jobs in the community.	a) Identify and develop a resource file of potential places of employment. b) Survey potential employers to determine if they have appropriate entry level jobs for students with a variety of handicapping conditions. c) Conduct a follow-up study of graduates of special vocational programs to determine which employers consistently hire graduates of the program. d) Given a number of handicapped students, identify their skills and match these with training stations. e) Place students in a cooperative work training station.

Competency	Performance Objectives
4. Develop a procedure for job relocation or rotation.	a) Evaluate learners performance on the job. b) Provide direct feedback to the learner and supervisor regarding the students performance. c) Develop a system for periodic review and placement with specified criteria to be met by both student and employer.
5. Conduct an employer appreciation program.	d) Write a news release acknowledging the contribution made by an employer. e) Plan and execute an employer-employee banquet. f) Design and present to participating employers a certificate of appreciation for those who have employed the handicapped.
6. Identify instructional needs of the handicapped students in obtaining marketable skills and develop, select and use instructional methods, materials and strategies to develop these skills.	Given a case study: a) Describe the instructional and resource problems that confront a vocational student with a specific handicapping condition. b) Describe the instructional processes that appear to be most effective for the above individual. c) Implement the necessary modifications of equipment, instructional resources and instructional methods, which will enable each student to develop marketable skills. d) Given a case study, of a student with a specific handicapping condition, describe how the physical facilities would need to be changed.
7. Develop, select, and use methods to assess individual student skills, aptitudes, liabilities and preference with respect to acquiring marketable skills.	a) Utilizing a learner profile analysis, select materials which are appropriate for the learning task involved. b) Select and administer an interest inventory which will assist the handicapped student to determine an occupation or cluster of occupations they might be interested in.

VI. COUNSELING AND HUMAN RELATIONS

Competency	Performance Objectives
Student will:	
1. Conduct a successful home visitation and conduct a parent-teacher conference.	a. Accompany a special education teacher on a home visitation and observe and record the techniques used in the interaction with the family. b. Observe a special education teacher in an actual parent-teacher conference and record the techniques used, the recommendations made by the teacher and the reaction of the family to these recommendations. c. Participate in a simulated home visitation and parent/teacher conference with parents of handicapped child - taking the role of the teacher and then the role of the parent.
2. Conduct a student conference.	a. Talk with an experienced teacher of handicapped children about topics appropriate for inclusion in a student conference. b. Read and/or review information related to techniques to be used in student conferences with handicapped children. c. List all materials and information needed before beginning a student conference. d. Observe an actual student conference with a handicapped child. e. Participate in a simulated student conference with a handicapped child.
3. Conduct a teacher to teacher conference.	a. Review techniques appropriate for conferences with adults. b. List topics appropriate for inclusion in a teacher-to-teacher conference with teachers of handicapped children. c. Participate in an actual teacher-to-teacher conference with special education teachers. d. Keep records of all topics covered and recommendations made.
4. Counsel students and parents.	a. Compile a report of each of the three types of conferences listed above (parent-teacher, student-teacher, teacher-teacher). b. List techniques which were successful in each type of conference. c. Make bibliography of books/materials related to counseling parents and teachers. d. Compile notebook of effective techniques for counseling students and teachers.

VII. SCHOOL AND COMMUNITY RESOURCES

Competency	Performance Objectives
1. Locate available school and community resources (including resource persons) for providing services to handicapped children.	a. Identify the services available to the handicapped student within the school district and the immediate area. b. List and describe the services provided at the state level. c. Identify five specific agencies and list the services they provide and availability and contact person. d. Describe the nature of support services available through BEH/ Bureau of Vocational Education. e. Identify counseling services available outside the local school district. f. Inventory the available resources within a given community. g. Develop a community resource data card file system containing names of agencies and specific resource persons.
2. Identify and use school and non-school resources that may contribute to vocational instruction for handicapped secondary students - specifically the development of academic skills through vocational programs.	a. Define school and community resources. b. Given a specific instructional need, the student will explain why resource utilization is important and identify several possible sources. c. Identify possible school resource persons, and list the services they provide handicapped students. d. Identify the four distinct types of community resources, upon the basis of the agencies or organization through which resources are available. e. Develop a system for collecting and retrieving information.

DEVELOPING TEACHER COMPETENCIES IN
WORKING WITH HANDICAPPED STUDENTS
DEPARTMENT OF OCCUPATIONAL AND CAREER EDUCATION
AND SPECIAL EDUCATION
UNIVERSITY OF LOUISVILLE

PROGRAM AGENDA

Thursday, May 17, 1979

9:00 - 9:30	Coffee, Get Acquainted
9:30 - 11:30	Characteristics of Special Needs Learners Categories of Handicapping Conditions
11:30 - 1:00	LUNCH
1:00 - 2:15	Film, "Including Me"
2:15 - 2:45	BREAK
2:45 - 4:00	Assessment of Student Needs Program Planning & Modification Cooperative Education for the Handicapped
4:00	ADJOURN

Friday, May 18, 1979

8:30 - 9:00	Coffee
9:00 - 9:30	School and Community Resources
9:30 - 10:00	Occupational Opportunities
10:00 - 10:15	BREAK
10:15 - 12:00	Education and the Law a. PL 94-142 b. PL 94-482
12:15 - 1:15	LUNCH
1:15 - 2:00	Educational Methods a. Behavior modification/Task analysis b. Reading and Math c. Teaching Techniques
2:00 - 2:45	Simulated Admission and Release Committee Development of IEP's
2:45 - 3:00	BREAK
3:00 - 4:00	Cooperative Planning and Execution of Vocational Program Development of IEP's for Vocational Students
4:00	ADJOURN

b. Dissemination

The dissemination aspects of the model consist of the following:

(1) Teacher training

All information gained from project activities as well as materials developed (including competencies and performance objectives) have been, or will be, included in existing courses in occupational and career education and special education at the University of Louisville. This procedure was chosen in preference to the development of new courses because the materials and information were suited to existing courses which were already included in the training programs of vocational education and special education students and new courses were not needed.

(2) In-Service Program

The major thrust of the dissemination phase of the model was in the in-service programs held throughout the state. These consisted of four two-day workshops held in the following locations:

1. April 19-20, 1979 Ft. Mitchell, Ky.
2. May Madisonville, KY.
3. May Lexington, KY.
4. May 18-19, 1979 Elizabetntown, KY.

These workshops were attended by vocational education teachers, counselors, and administrators from a variety of programs in Kentucky. The program presented at each workshop was essentially the same and is presented below (table).

The basic purpose was to familiarize participants with the basic characteristics of handicapped children, program planning, special education and vocational laws, and specific educational methods.

Responses of participants to the workshops were very positive. A summary of the written responses to the completed evaluations have been included in Appendix I. These responses appear to be representative of the attitude of vocational educators throughout Kentucky. Therefore, workshop organizers see the need for more extensive in-service programming of this kind.

4. SUMMARY AND RECOMMENDATIONS

The model program for Kentucky has been presented in this section of the report. It consists of two major components: 1) A set of competencies and performance objectives which were deemed to be important, if vocational teachers are to deal effectively with handicapped youth in their classrooms and laboratories and, 2) a dissemination component which consisted of in-service teacher component.

The workshop approach to development of competencies appeared to be quite effective; however, one identified weakness, as seen from the perspective of the project staff, is that not enough teachers were able to participate. Because of this particular weakness, it is therefore recommended that the identified competencies be incorporated into one or two additional courses which would lead to certification. The research portion of this project clearly indicates that some changes are necessary if special vocational educators are to deal with the problems of the handicapped. Based upon these findings and the experiences of the project

staff in conducting the workshops, the following recommendations are presented for consideration:

1) A committee should be established to review the certification requirements for special vocational educators as they relate to the unique needs of handicapped persons.
2) Identified competencies be incorporated into two or more courses in order to assure that these competencies will continue to be taught. A review of the literature and programs from other states indicates that this is the best approach if continuity and consistency of professional development is to occur.
3) In-service programs should be continued in order to meet the needs of teachers already certified.

APPENDIX
A

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APPENDIX

B

SPECIAL/VOCATIONAL TEACHER COMPETENCY SURVEY

Instructions:

Following is a list of teacher competencies. This list has been designed as a survey to be used in the determination of teacher competencies necessary for working with the handicapped learner and to assist in the determination of teacher training needs. After each competency listed, circle the number on the scale most closely fitting the frequency with which you perform the task: 1) Never; 2) Occasionally; 3) Monthly; 4) Weekly; 5) Daily. Next, write in the blank the number corresponding to your feelings of the importance of the competency: 5) Very important; 4) Of Considerable Importance; 3) Somewhat Important; 2) Of Little Importance; 1) Not Important. Finally, fill in the blank with the number corresponding to your confidence level in the competency: 5) Very Confident; 4) Considerable Confidence; 3) Somewhat Confident; 2) Little Confidence; 1) Not Confident.

COMPETENCIES	FREQUENCY					IMPORTANCE	CONFIDENCE LEVEL
	Never	Occasionally	Monthly	Weekly	Daily	5-Very Important 4-Of Considerable Importance 3-Somewhat Important 2-Of Little Importance 1-Not Important	5-Very Confident 4-Considerable Confidence 3-Somewhat Confident 2-Little Confidence 1-Not Confident
CLASSROOM MANAGEMENT, PLANNING AND TEACHING METHOD COMPETENCIES:	1	2	3	4	5		
1. Develop positive reinforcement techniques.	1	2	3	4	5	_____	_____
2. Prescribe alternate reading activities.	1	2	3	4	5	_____	_____
3. Select and locate instructional materials appropriate for the various handicapping conditions.	1	2	3	4	5	_____	_____
4. Identify emotional factors that affect classroom environment.	1	2	3	4	5	_____	_____
5. Utilize math activities in teaching vocational subjects.	1	2	3	4	5	_____	_____

6.	Construct a system of reporting student progress to students and parents and chart student progress.	1	2	3	4	5	_____	_____
7.	Group students for small group instruction according to diagnostic ability.	1	2	3	4	5	_____	_____
8.	Employ oral questioning techniques to insure the handicapped student's comprehension and to determine the effectiveness of instruction.	1	2	3	4	5	_____	_____
9.	Employ "live-work" or "hands-on" method of learning.	1	2	3	4	5	_____	_____
10.	Employ role-playing and simulation techniques.	1	2	3	4	5	_____	_____
11.	Estimate time sequence for a unit of instruction.	1	2	3	4	5	_____	_____
12.	Include units on the importance of the home in the education of exceptional children.	1	2	3	4	5	_____	_____
13.	Adjust adequately to problems arising from the integration of handicapped children into the regular classroom.	1	2	3	4	5	_____	_____
14.	Be flexible and adaptable in establishing viable alternatives in a variety of situations.	1	2	3	4	5	_____	_____
15.	Identify behavioral objectives.	1	2	3	4	5	_____	_____

16.	Implement co-operative teaching efforts between vocational and special educators.	1	2	3	4	5	_____	_____
	CO-ORDINATION COMPETENCIES:							
17.	Inform employers of their responsibilities	1	2	3	4	5	_____	_____
18.	Conduct orientation for available academic and vocational programs	1	2	3	4	5	_____	_____
19.	Identify entry level jobs in the community	1	2	3	4	5	_____	_____
20.	Conduct an employer appreciation program	1	2	3	4	5	_____	_____
21.	Construct a procedure for job relocation or rotation	1	2	3	4	5	_____	_____
22.	Work with teacher aids and other para-professionals	1	2	3	4	5	_____	_____
23.	Incorporate business and industrial manuals in curriculum	1	2	3	4	5	_____	_____
24.	Possess knowledge of available services both in and out of school. In school services - other teachers, guidance counselors, vocational rehabilitation services, vocational education services, social workers. Services within the community - mental health centers, guidance clinics, medical facilities. Financial resources available.	1	2	3	4	5	_____	_____

25.	Analyze employment situations, make job breakdown and descriptions, and transform job requirements into educational programs.	1	2	3	4	5	_____	_____
26.	Identify instructional needs of handicapped students in obtaining marketable vocational skills and develop, select and use instructional methods, materials and strategies to develop these skills.	1	2	3	4	5	_____	_____
27.	Identify and use school and non-school resources that may contribute to vocational instruction for handicapped secondary students - develop academic skills through vocational programs.	1	2	3	4	5	_____	_____
COUNSELING AND HUMAN RELATIONS COMPETENCIES:								
28.	Conduct a successful home visitation and conduct a parent-teacher conference	1	2	3	4	5	_____	_____
29.	Conduct a student conference	1	2	3	4	5	_____	_____
30.	Conduct a teacher-to-teacher conference	1	2	3	4	5	_____	_____
31.	Identify symptoms of drug abuse as compared to use of prescribed medicines	1	2	3	4	5	_____	_____
32.	Identify personality patterns	1	2	3	4	5	_____	_____

33.	Develop a system whereby students can determine their own values and relate these to others.	1	2	3	4	5	_____	_____
34.	Counsel students and parents	1	2	3	4	5	_____	_____
	CURRICULUM DEVELOPMENT COMPETENCY:							
35.	Design and organize the physical plan of a classroom or make modifications to an existing classroom to suit handicapping conditions to students	1	2	3	4	5	_____	_____
	COMPETENCIES IN EVALUATING STUDENT PROGRESS AND DEVELOPING LEARNING RESOURCES:							
36.	Assess student reading level	1	2	3	4	5	_____	_____
37.	Assess ability of student to modify behavior	1	2	3	4	5	_____	_____
38.	Diagnose reading problems	1	2	3	4	5	_____	_____
39.	Evaluate student reading progress	1	2	3	4	5	_____	_____
40.	Diagnose specific reading difficulties	1	2	3	4	5	_____	_____
41.	Identify physical factors which contribute to reading difficulty	1	2	3	4	5	_____	_____
42.	Identify intellectual factors contributing to reading difficulties	1	2	3	4	5	_____	_____
43.	Administer appropriate diagnostic tests	1	2	3	4	5	_____	_____
44.	Assess student comprehension of math concepts	1	2	3	4	5	_____	_____

45.	Identify educational factors which contribute to reading difficulties	1	2	3	4	5	_____	_____
46.	Utilize results of diagnostic tests	1	2	3	4	5	_____	_____
47.	Interpret results of vocational tests	1	2	3	4	5	_____	_____
48.	Devise alternative methods of grading	1	2	3	4	5	_____	_____
49.	Conduct a student followup study	1	2	3	4	5	_____	_____
50.	Identify resource persons	1	2	3	4	5	_____	_____
51.	Establish a student tutoring program	1	2	3	4	5	_____	_____
52.	Develop, select and use methods to assess individual student skills, aptitudes, liabilities and preference with respect to acquiring marketable vocational skills.	1	2	3	4	5	_____	_____

PROGRAM MANAGEMENT COMPETENCIES:

53.	Understand terminology of handicapping conditions	1	2	3	4	5	_____	_____
54.	Implement program modifications	1	2	3	4	5	_____	_____
55.	Complete state records and contribute to individualized education plans	1	2	3	4	5	_____	_____

PROFESSIONAL DEVELOPMENT COMPETENCIES:

56.	Receive training in diagnostic and prescriptive teaching	1	2	3	4	5	_____	_____

57.	Receive training in behavior management techniques	1	2	3	4	5	_____	_____
58.	Possess knowledge of available remedial techniques	1	2	3	4	5	_____	_____
59.	Possess knowledge of the effects of disadvantagements and handicaps on human development	1	2	3	4	5	_____	_____
60.	Understanding of the rationale behind programming students into least restrictive environment	1	2	3	4	5	_____	_____
61.	Basic knowledge of the adolescent Formal education (adolescent psychology) Practical experience gained in working with adolescents	1	2	3	4	5	_____	_____
62.	Have as a goal the strengthening of the self-image of handicapped students	1	2	3	4	5	_____	_____

APPENDIX

C

VOCATIONAL EDUCATION PERSONNEL DEVELOPMENT PARTICIPANT SURVEY

SUMMARY OF COMMENTS

1) The discussion on handicaps, definitions, and teaching suggestions, were most beneficial to me.
2) I really don't think anything could have been done to improve the activity . . . It was very interesting to me.
3) The information was valuable and presented very well.
4) This was a very rewarding experience to me. It enables me to better understand how I can help my students to achieve more from the program.
5) Place greater emphasis on secondary and post-secondary needs and on ways to meet them.
6) Gained knowledge of resources.
7) I found out about different organizations that could help me.
8) Practical information for all present.